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THE OHIO STATE UNIVERSITY
COLLEGE OF EDUCATION
GEORGE F. ARPS, *Dean*

ATTENDANCE AT KINDERGARTEN AND PROGRESS IN THE PRIMARY GRADES

BY

JOSEPHINE MacLATCHY

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Educational Research Bulletin

POLICIES OF STATE UNIVERSITIES IN REPORTING STUDENTS' MARKS

RAYMOND D. BENNETT
Ohio State University

KEEPING students informed of a university's evaluation of their achievements and shortcomings is an important means of motivating college work. Keeping the parent informed of the standing of his son or daughter, however, is frequently even more effective than reporting the scholarship marks to the student himself. Particularly is this true of those students who require the special incentive that results from parental pressure. This article gives the practices of twenty-five state universities with regard to informing the student and his parents of his scholastic record.

This inquiry into university policies of reporting student marks constitutes one phase of a study of university scholarship standards which was undertaken during 1927. The data presented in Table I were obtained for some institutions from the latest available catalogue, bulletin, or student manual. Satisfactory published information, however, was not available for nearly two-thirds of the institutions and, accordingly, personal letters were written to the university registrars. The inquiry relative to the practice in reporting marks was stated in essentially the following form: "Does the registrar or other official mail a report of the semester, term, or quarter marks (a) to the student? (b) to the parent or guardian?" The registrars, as a rule, not only answered the questions and described the general policies of reporting final semester marks in their replies, but they also supplied information concerning mid-semester, and other special, reports. It is quite probable that in some institutions other procedures exist, such as reporting monthly marks of deficient students, on which no information was furnished either by the registrar or by the official bulletins consulted.

Most of the twenty-five universities definitely provide for reporting some or all of the students' marks to the parents or guardians. In ten of the institutions all final semester marks are thus reported by the university office. This group includes four universities, Wisconsin, Texas, Oklahoma, and Missouri, whose enrollments are above the median for the institutions studied, and the University of Oregon whose enrollment—3,022—is the median of the twenty-five. Five other universities report to the parents failures or low passing marks only. Four of these five, Illinois, Michigan, Nebraska, and Indiana, have enrollments above the median for the twenty-five institutions.

The registrars of five universities stated that mid-term reports of

TABLE I

PROCEDURE FOLLOWED BY TWENTY-FIVE STATE UNIVERSITIES IN REPORTING MARKS

University	Number of Full-Time Regular Students*	Marks Sent to Students	Marks Sent to Parent or Guardian
(1)	(2)	(3)	(4)
University of Arizona...	1,537	Semester marks, if self-addressed envelope is furnished	Semester marks, if self-addressed envelope is furnished
University of Arkansas..	1,420	.....	Semester reports; mid-semester reports of unsatisfactory work
University of California	17,311	Final semester marks to those requesting them; mid-term reports of lowest passing marks and failures	No reports
University of Florida...	2,010	.....	Monthly report
University of Idaho.....	1,778	.....	All semester marks for Freshmen and Sophomores†
University of Illinois....	12,033	All semester marks and cumulative total hours of credit	Semester marks and cumulative total hours of credit for all students who have failed one or more courses
Indiana University.....	4,082	All semester marks	All failures; a report of all marks when requested
State University of Iowa	5,345	Course book, with record up to to date, to each student in College of Liberal Arts, if self-addressed stamped envelope is furnished; otherwise a statement of failing and low passing marks only	.....
University of Kentucky	2,339	.....	Semester marks; special reports at any time when requested
Miami University.....	1,655	.....	Semester marks; special reports at any time when requested
University of Michigan..	9,700	Semester marks	All marks below passing
University of Missouri..	3,950	.....	Semester marks
University of Nebraska	6,239	Semester marks	Notices of probation or suspension for low scholarship are sent by the Dean at middle or end of semester
Ohio University.....	2,027	Student's record book, with semester marks, if stamped addressed envelope is furnished	.....
Ohio State University..	10,035	All failures and incompletes at end of quarter	Mid-term reports of unsatisfactory work done by Freshmen who are in the first quarter of residence. Reports of marks in all courses at the end of each quarter for all Freshmen
University of Oklahoma	4,738	Semester report handed to student or mailed if stamped addressed envelope is furnished	Semester report, four weeks after the end of each semester
University of Oregon....	3,022	All term marks	All term marks‡
University of South Dakota	929	All semester marks	Semester marks of students under 21 years of age

TABLE I—*Continued*

University	Number of Full-Time Regular Students*	Marks Sent to Students	Marks Sent to Parent or Guardian
(1)	(2)	(3)	(4)
University of Tennessee.	2,726	.....	Report of marks at end of quarter; report of unsatisfactory work whenever necessary
University of Texas.....	5,536	Mid-term reports of failing marks	Mid-term reports of failing marks, by the Dean; term reports of all marks, by the Registrar
University of Utah.....	2,768	Statement of standing to students who have passed in all subjects	Report of the student's standing in case of students who have failed in one or more subjects
University of Virginia..	2,135	.....	All term grades and record of absence from lectures for each student; special reports at any time upon request. Early in November a report on the standing of each first-year student in the College of Arts and Sciences. The Department of Engineering sends special reports at the end of each month for students "delinquent in attendance or studiousness."
University of Washington	7,354	Report of record in book form handed to student at end of quarter or mailed if postage is furnished	Marks at end of quarter only when requested
West Virginia University	2,504	Mid-term report of unsatisfactory work; semester report to student *or* to parents or guardian	Mid-term report of unsatisfactory work; semester report to student *or* to parents or guardian
University of Wisconsin.	8,942	See Column 4	Semester report, with the request that it be handed to student

*A full-time regular student is defined as one "who has completed a four-year high-school course and is devoting his full time (twelve hours a week or more) to study during the collegiate year." Registration data taken from: Walters, Raymond. "Statistics of Registration in American Universities and Colleges, 1927," *School and Society*, 26:759 and 764-65. December 17, 1927.

†Freshmen and Sophomore marks are also reported to the high school last attended by the student.

‡Also issued to high schools, to newspapers, and to others upon request.

unsatisfactory marks are regularly furnished to parents. Evidence of particular interest in the problems of first-year students is found in at least four universities which report to parents the records of freshmen students or of those under 21 years of age. Ohio State University, for example, mails a mid-term report to parents in every case where unsatisfactory work is being done by Freshmen in the first quarter of residence. The registrar also reports to parents of all Freshmen the official marks of each quarter.

The policy of reporting marks to students varies in the different institutions. In approximately one-fourth of the twenty-five considered here it appears that the central university office reports all marks to the student at the end of the semester. Approximately an equal number supply the report when requested or when postage is furnished. At least three institutions regularly issue to the students

mid-term statements of unsatisfactory work. In general, however, the central university office appears to be less concerned with issuing statements to the student than it is with reporting the student's record to his parents. If either policy is to be emphasized at the expense of the other, doubtless this preference is justified, since the student has other convenient means of learning his semester marks.

THE ORIGIN AND DEVELOPMENT OF THE MUNICIPAL UNIVERSITY IN THE UNITED STATES[1]

R. H. ECKELBERRY
Ohio State University

CHARACTERISTIC FEATURES OF AMERICAN MUNICIPAL UNIVERSITIES

PRECEDING articles in this series have presented briefly the outstanding facts in the development of the municipal university in the United States. It is the purpose of this concluding article to call attention to certain characteristics of this type of institution as it exists today.

The establishment of every municipal university has been in accordance with specific statutory authorization and in every case the statute embodying such authorization has been enacted at the request of persons of a particular locality. These enabling acts differ, however, in the number of cities to which they apply. The College of Charleston, the University of Louisville, the College of the City of New York, and Hunter College were each established in accordance with a local law which applied only to the city named in the act. The Michigan acts of 1919, 1921, and 1923, which authorized the transfer to the city of the Detroit College of Medicine and Surgery, the transformation of the Detroit Normal School into a four-year degree-granting institution, and the extension of the Detroit Junior College course to four years, apply only to cities having a population of at least 250,000. The law of 1927, which authorizes a city board of education to establish and maintain a college of liberal arts and such professional colleges as it may deem expedient, and under whose terms the Detroit City Law School was established, applies only to cities having a population of at least 500,000. Detroit, therefore, is the only city in the state having power to establish a municipal college or university. The Kansas act of 1925 refers only to cities having a population between 70,000 and 110,000; Wichita and Kansas City are the only such cities in the state. The New York act of 1926 which created the Board of Higher Education and authorized the establishment of other college centers is general in form, but it is so worded as to apply only to New York City. The law under which the University of Cincinnati was established and the laws which have been passed from time to time for its benefit are general in character. Toledo University and the University of Akron were established under the provisions of this legislation.

Ohio is the only state in the Union having a municipal university code

[1]See Bulletins of January 11 and 25, February 22, March 7, and April 4, for articles under the same title.

which applies to a considerable number of cities.[1] It is doubtless due to this fact, as President P. R. Kolbe has pointed out, that three of the nine municipal universities are in that state.[2] On the other hand, in the article referred to, data for which were obtained through an inquiry addressed to the attorney-general of each state, Kolbe points out that in no case does a state expressly forbid the establishment of municipal universities.[3] In California, and possibly in Minnesota, Mississippi, Virginia, and New Jersey, existing laws confer on cities educational powers which are broad enough to render the maintenance of municipal universities legal.[4]

Two distinct classes of administrative control are found in the municipal universities. In one class are the colleges of Detroit, which are controlled by the city Board of Education in exactly the same way as are the elementary and secondary schools. In the other class are all the others, since each has a separate board of trustees, directors, or regents. City College and Hunter College of New York are the only institutions in the second class which have ever been controlled by a board of education. These were established by the Board of Education and remained under its control until 1866 and 1888, respectively, when they were chartered as distinct corporations. Under the new charters, each Board of Trustees was composed of the members of the Board of Education ex officio; for practical purposes, the colleges were still under control of the Board.[5] A separate board was provided for City College in 1900 and for Hunter College in 1915. It is significant that in each case the law making this change was passed because members of the board of trustees found it impossible to give adequate attention to the college in addition to the task of managing the city public schools.

These boards controlling municipal universities are chosen in a variety of ways. In New York, each board is comprised of nine citizens appointed by the Mayor for nine-year terms—one expiring each year—and the president of the Board of Education ex officio. Beginning in April, 1929, all municipal colleges are to be under the Board of Higher Education, which will consist of members from the two existing boards and three additional members to be appointed by the Mayor for like terms.

Both at Akron and Toledo, the boards, under terms of the law passed in 1902, consist of nine citizens appointed by the Mayor for six-year terms, three expiring each second year. Under Cincinnati's new charter, the university board consists of nine citizens appointed by the Mayor with the advice and consent of the Council for nine-year terms, one expiring each year. At Charleston the board consists of sixteen members, as follows: the Mayor and the Recorder of the city ex officio; three members elected annually by the Council, at least one of whom must be a member of Council; eight elected for eight-year terms by the board itself, one term expiring each year; and three graduates of the college, one elected each

[1] This statement is based on a study of the digests of state educational legislation which have been published as Bulletins of the United States Bureau of Education, viz.: 1915, No. 47; 1918, No. 23; 1920, No. 30; 1925, No. 2.

[2] Kolbe, P. R. "The Present Status of the American Municipal University," *School and Society*, 1:484-86, April 3, 1915.

[3] This is confirmed by a study of the digests of educational legislation just mentioned.

[4] In California, these broad powers are possessed only by freehold cities. No reply was received from the attorney-general of Alabama, Colorado, Georgia, Maine, Montana, Nebraska, Rhode Island, Tennessee, or Vermont.

[5] The president of City College was made an ex-officio member of its board of trustees in 1872, and the president of Hunter College a member of its board in 1888.

second year by the Alumni Association for a six-year term.[1] At Louisville the board consists of eleven members nominated by the Mayor and confirmed by the General Council. At Wichita the Board of Regents consists of nine members, as follows: four elected by the Board of Education, the term of one expiring each year; four elected by the Board of Education, with like tenure; and the Mayor ex officio. The Wichita Board of Education possesses a larger share in university control than any other city board except that of Detroit.

In no case except Detroit is the board chosen by popular election. The public, therefore, is represented only indirectly. In every case the terms of only a small proportion of the members expire at any one time; a continuity of policy is thus provided for.

Scholastically, municipal universities are quite similar to American state and private colleges and universities. Each college of liberal arts offers the usual four-year course and grants the traditional baccalaureate degrees. Each has adopted some form of the group system of elective studies, although the various institutions differ considerably in the ratio between prescribed and elective work. All are chiefly undergraduate institutions. Preparatory departments are not maintained except by the two colleges in New York;[2] where graduate work is offered it is secondary in importance to undergraduate and professional instruction. All except those in New York are fully coeducational. City College admits women, and Hunter College admits men for work which they cannot secure at the sister institution. The Brooklyn Center admits both men and women, but they meet in separate classrooms.

Junior colleges which include the work of the first two years have been established at Toledo and Detroit. This work must be completed before admission to the senior colleges is granted. The student who completes a prescribed junior-college curriculum at Toledo is granted the title of "Associate in Arts" or "Associate in Science."

In enrollment, complexity of organization, and scope of work, these universities vary greatly. Rough measures of this variability are presented in Table I. Data given in Columns 2 and 3 were taken from current annual catalogues of the various universities, and those given in Column 4, from the *World Almanac* for 1928. The total enrollment of students studying for degrees varies from 236 at the College of Charleston to 11,282 at the College of the City of New York, while the number of schools and colleges within these institutions ranges from one to nine. In the number of degrees offered, which indicates roughly the scope of work, the range is from two to twenty-five.

Probably the most striking feature of the work of municipal universities is the extent to which they have supplemented traditional college work by new types of service especially adapted to the needs of their respective communities. Each conducts classes in the late afternoon or evening, or both, for the benefit of those employed during regular college hours. In scope of work covered by these

[1] This method of choosing the members of the board was provided by a law passed in 1881 and amended in 1897. *Acts and Joint Resolutions of the General Assembly of the State of South Carolina*, 1881, No. 489; *Ibid.*, 1897, No. 369. Under this law, the city has only a minority representation on the board of trustees. According to a strict interpretation of the definition of a municipal university previously given, the College of Charleston would be excluded after 1881. But, since the Council under the law of that year made the original selection of the majority of the board, and since the authorities and citizens of the city still regard the college as essentially a city institution and have made their largest financial contributions in recent years, I have also considered it as such.

[2] At Charleston and Akron the preparatory departments were discontinued when the institutions were brought under city control.

courses, a wide range exists. At Charleston, only commercial subjects are taught, while at New York, work in most of the departments of City College and Hunter College can be obtained in the evening.

Courses whose content is adapted to urban constituencies naturally form an important part of the offering of these institutions. Charleston, City College, Cincinnati, Akron, and Wichita have schools or colleges of business; Toledo and Detroit permit students to major in commercial subjects; and Hunter offers commercial and secretarial courses. Louisville, City College, Cincinnati, and Akron have schools of engineering or technology; Charleston offers an arts course with engineering. Toledo and Wichita offer the first two years of engineering, and Detroit offers the first three years in most branches of engineering and a full four-year course in chemical engineering. In New York, where many thousands are employed in the civil service, many courses are offered especially designed to enable those people to perform their tasks more efficiently and to qualify for promotion. At Akron, a course in rubber chemistry is offered; it is thought to be the only course of its kind in the world.

TABLE I

ORGANIZATION, ENROLLMENT, AND DEGREES GRANTED IN TEN MUNICIPAL UNIVERSITIES

University	Schools and Colleges in Each	Degrees Offered	Enrollment
(1)	(2)	(3)	(4)
College of Charleston	2	3	236
University of Louisville	6	19	1,274
College of the City of New York	4	12	11,282
Hunter College of the City of New York	1	3	3,615
University of Cincinnati	9	25	3,919
University of the City of Toledo	2*	2†	1,702
University of Akron	4	10	1,241
Colleges of Detroit	5	10	3,295‡
Municipal University of Wichita	4	6	631

* In addition to the Junior College which enrolls all students during the first two years. † In addition to titles conferred on those who complete the work of the Junior College or the course in pharmacy. ‡ *Eighty-fourth Annual Report of the Detroit Public Schools.* Detroit, Michigan, Board of Education, 1927. p. 17. Figures for the City Law School are not given, but at the beginning of the present school year it was estimated that its enrollment would be about 300. See *Detroit News*, September 16, 1927.

Service to, and cooperation with, their respective cities include many activities outside of classroom and laboratory instruction. This type of work has been developed furthest at Cincinnati but has made notable progress elsewhere. The following quotation from an address by President Charles W. Dabney in November, 1914, lists a few of the many activities of the University of Cincinnati in this field.

> The department of biology conducts the bird reserve, has charge of school gardening, and cooperates with the zoological garden. . . . . The department of social sciences . . . . assists the juvenile court in providing volunteer officers; the department of charities and correction, the house of refuge, and the associated charities, in investigations; the anti-tuberculosis league and the juvenile protective association, in surveys; the Union Bethel and the Settlement, in investigations and club work; and the Council of Social Agencies in surveys and rehabilitation. One of the most important services rendered the city government is the maintenance, by the political science department, of a municipal reference department in the city hall. . . . . The engineering department conducts a city testing bureau which examines, analyzes, tests, and evaluates all material for use by city departments.[1]

As life in modern cities becomes more and more complex, the need for this type of service increases. It is probable that it will become an increasingly important part of the work of the municipal university.

[1] *The University and the Municipality. Summary of the Proceedings of the First Session of the National Association of Municipal Universities.* United States Bureau of Education Bulletin, 1915, No. 38. pp. 56-58.

SUMMARY

Municipal universities have been established in the United States at intervals during the past ninety years, but with much greater frequency during the years of the twentieth century. In every case a municipal university has come into being either by the transfer to the city of a privately-controlled institution or by development out of a public institution of non-collegiate character. The establishment of this type of institution may be regarded as an important manifestation of the movement for the democratization of educational opportunity, as an expression of the tendency for the secularization of education through the increased participation of civil authorities in its support and administration, and as one result of the increasing urbanization of our civilization. It is, therefore, one of the most interesting and significant of recent educational developments. As those great movements or tendencies show every sign of continuing, we may reasonably expect that the municipal university will play an increasingly important part in the education of the future.

CLEVELAND ISSUES NEW COURSE OF STUDY IN ARITHMETIC

Cleveland has recently issued a new course of study in arithmetic for kindergartens and elementary schools. Assistant Superintendent H. M. Buckley calls attention in the Preface of the course to the provisions made for the varying abilities of pupils. Specific objectives are displayed in three parallel columns, one for each of the main ability groups recognized in the Cleveland elementary schools. The courses for the three ability groups differ in three ways. There are, first, differences in the degree of difficulty to correspond with what Thorndike calls the altitude of intelligence; second, differences in the number of items undertaken and number of applications made, to correspond with differences in the range of intelligence; and, third, differences in the rate of progress through the ascending difficulties and principles of scientific mathematics, to correspond with differences in speed of work or learning.

The materials of the course were collected mainly in the classrooms of Cleveland schools where they had repeated trial. Initial trials of the course in its present form in a few schools tend to show that both the ablest and the slowest groups are much improved in mathematical achievement by following the suggestions of the new courses, while Y groups are not materially affected. The supposition is that the old course of study fitted the average groups fairly well. The course is still in tentative form, and will be added to and modified in experimental schools during the next year or two.

W. L. CONNOR,
Cleveland Bureau of Educational Research

The Bureau of Instructional Research of the Chicago schools has been abolished by the Board of Education upon the recommendation of Assistant Superintendent Bogan. The ostensible reasons for this action are:

> To carry on this work more effectively a much larger personnel of experienced teachers and testing experts is necessary. The present haphazard use of part-time substitutes is unscientific, but a better arrangement cannot be made at this time because of lack of funds. Until financial relief is possible it is felt that ineffectual effort may be suspended and the civil service personnel now engaged used more productively in work that needs concentrated attention during the coming school year. Meanwhile, investigation

will be made of plans to do the work attempted by this bureau with trained personnel without cost to the Board.

The last sentence of the recommendation is fraught with meaning. Boards of Education are always trying to get something for nothing. If the work cannot be carried on by part-time personnel then certainly no ways and means can or will be found for doing the work without cost to the Board.

The Bureau was established by Superintendent Mortenson in 1920, hence has been functioning for seven years. During the past three years the Superintendent has used the Bureau for the purpose of gathering objective data on the improvement of instruction, which is the real reason for Mr. Bogan's recommendation. E. E. Keener, who has been the Director of the Bureau, was transferred to the principalship of Lincoln School.

J. A. B.

High-school principals and teachers of education will welcome the latest addition to the "Century Education Series" which is entitled *High School Administration*.[1] The author has produced a book that is in many respects superior to any book that has thus far appeared in the general field of high-school administration. According to the Preface the text aims "not primarily to contribute either new devices or new principles, but to synthesize current practice with a commonly accepted philosophy of education."

The book is divided into five parts. Part I is entitled "The Scientific Basis for Administration." It contains a chapter on "Administrative Ideals and Aims" and another entitled "Fundamental Principles of Administration." Part II, dealing with the faculty, has a chapter on the "High-School Principalship" and one on "The Staff." Part III contains four chapters on "The Pupils and Their Needs." Part IV discusses "The Studies" with chapters on the Curriculum, supervision of classroom teaching, special types of school work, and the daily program. Part V is devoted to "The School Life" with chapters on training the student body, the school life of the student body, and the non-conforming pupil. Part VI, "Management and Relations" rounds out the treatment of high-school administration with chapters on "Problems of Management," "Finances, Records and Reports," "External Relations," and "The Small High School." Appendix A contains a detailed and up-to-date bibliography arranged chapter by chapter and section by section. Appendix B contains a select list of books and periodicals for the high-school principal's professional library. Appendix C is a list of supplementary problems taken from Edmonson's *New Problems in Secondary Education*. Appendix D contains numerous suggested forms for records and reports. Appendix E contains an explanation of the Dalton Plan.

Professor Foster has succeeded very well in the task announced in the Preface. In the opinion of the reviewer the weakest part is the bibliography which, though comprehensive in scope, suffers from the scheme adopted of abbreviating the titles of books and periodicals. The busy reader seeking additional sources of information is vexed at having to refer to the key for the complete titles. The bibliography is also to be criticized because of lack of alphabetical arrangement and failure to supply the initials of the authors.

D. H. EIKENBERRY

[1] Foster, Herbert H. *High School Administration*. New York, Century Company, 1928. xvii+665 pp.

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PARENTAL EDUCATION

THIS curiously complex social milieu which we call modern civilization requires, as Fiske pointed out, an everlengthening period of dependence on the part of the young members of the human family. So difficult has become the adjustment of the immature members of society to adult living that an agency has been created whose special purpose it is to take over this task. We call this agency the school and the personnel of the school we call teachers.

When the school was developed, the home was a pretty well-organized institution. Certain opportunities for work, play, and the give and take of intimate social intercourse were available. The twentieth-century home has lost many of these opportunities; while the highly stimulating demands on the part of new and attractive agencies enter into competition with the home and weaken its influence.

Under these circumstances society must, as always, seek new means to meet new conditions. By a thousand streams the demand is swelling for conscious training in parenthood. Parenthood, you know, is an occupation in which most of us engage but for which none of us is trained. There seems to be a notion that in spite of the difficulty of conducting high-grade modern homes, the ability to do so will be miraculously generated when a young couple marry, rent a few rooms, and have a baby.

It is no use to talk about going back to the simplicity of the earlier days. We cannot do it. The resourceful community is the community which meets the new conditions by new measures. Astonishingly numerous are the agencies for informing parents concerning the rearing of children. There are child-study associations, national congresses, committees without number, clubs, societies, funds, and whatnot in a feverish stirring up of the body of knowledge which the modern parent is supposed to need. How much good these organizations are doing, no one is fully aware. Their life has as yet been too short to give us more than a promise. So far as their labors consist merely in holding meetings and listening to addresses by "viewy" people, their influence will probably be little more than stimulating.

As we see it, society must come to grips with the problem in a much more thoroughgoing fashion. The psychology of today minimizes the hereditary equipment which in earlier days we believed the young child to possess. Whether the extreme view of some of the behaviorists who deny heredity will or will not prevail, it is probable that a truer estimate of human nature will place increasing emphasis upon *very early* environmental influences. If this is the case, science will come to the support of common sense in the belief that the early years of childhood are by all odds the most "impressionable."

Here is where the home plays its part for good or evil. This is where the mother who knows how to attend

to temper tantrums as well as to feed and clothe and amuse her child, makes it possible for the school to do its work. Thus it appears that the home is exalted as an institution for training children. The school cannot do the job alone. Accordingly, something with more virility, something more systematic than can be furnished by welfare organizations or volunteer clubs must be afforded.

We wish to suggest that it would be in keeping with the importance of the subject as well as with the trend of the times if our universities and colleges were to give courses primarily designed to train for parenthood. Of course a beginning in this has been made. Courses have been offered at the University of Florida, the University of Minnesota, Columbia University, the University of Oregon, and some others. There is no occupation which college boys and girls will so inevitably follow as that of being parents. There is no reason why they should be left in ignorance of the duties they will have to perform. The only justification for an attitude of indifference is the belief—which every new invention and every added complexity of modern life refutes—that the business of parenthood is simple and unlearned. B. R. B.

A CONTROLLED EXPERIMENT TO DETERMINE THE ADVANTAGES OF HOMOGENEOUS GROUPING

R. O. BILLETT
Painesville, Ohio

(*Continued from the issue of April 4*)

SEVERAL problems which deserved special attention were found among the results obtained during the first year of the experiment. The first problem was concerned with the extent to which the tests used with each of the groups really measured the elements in which gains might properly be expected. Some uncertainty was felt as to whether informal objective tests, which were carefully constructed, might not make a much better criterion for judging the relative progress of the groups than standardized tests which had been used during the first year of the experiment. The meaning of the negative measurable, results which were obtained from the fast homogeneous group was also questioned. This group seemed to engage in many activities for which no adequate measure was provided in the testing program; for example, the members of the group spent considerable time on the appreciation of literature, the writing of original poems, and in oral expression and debate. Manifestly, such accomplishments could only be indirectly and inadequately measured by the tests employed.

Some other criterion than the intelligence quotient, as a basis for homogeneous grouping, seemed desirable. The next two years of the experiment were planned to indicate answers to these questions.

THE SECOND YEAR'S EXPERIMENT

In order to determine whether the tests used in the first year's experiment really covered all the ground in which gains might be expected, four other tests were added during the

second year to make the measurement more accurate. The added tests were: Lewis Letter of Application, Haggerty Reading Examination, Sigma 3, Abbott-Trabue Appreciation of Poetry, and Kirby Grammar Test. This augmented battery of tests gave ten sets of scores which covered many phases of language, grammar, vocabulary, composition, reading comprehension, and appreciation of poetry.

Since the intelligence quotient used as the criterion for homogeneous grouping had been questioned, a composite score was used during the second year which made the teachers' rating[1] as important a factor in the grouping as the intelligence quotient. This composite score was derived (1) by dividing the pupil's intelligence quotient by the standard deviation of the total distribution of intelligence quotients, namely, by the standard deviation of the intelligence quotients of all the pupils involved in the experiment; and (2) by dividing the rating assigned to the individual pupil by the standard deviation of the total distribution of the teachers' ratings. The two quotients thus obtained were added to form the composite score. Equal weight was thus given to the intelligence quotient and to the teachers' rating. There was no reason for making this weighting 1 to 1; it might have been 1 to 3, or any other ratio. In the absence of any scientific data on the subject, an arbitrary ratio was chosen and studied. When the results of the first two years of experimenting were compared, the intelligence quotient was chosen as the basis of grouping for the third year of the experiment.

Accomplishment rating.—The rating scale suggested as the means of obtaining the teacher's rating of the pupil, which was to accompany the intelligence quotient obtained by giving the Terman Intelligence Test involved several processes. The teacher was asked to recall, from her past experience in teaching, (1) the student who accomplished work of the highest grade, (2) a typical student of average accomplishment, and (3) the student who had accomplished least in the subject under consideration. The names of these students were written in this order on a small card. Between the name of the student who accomplished most and the name of the average student the teacher was asked to insert the name of the student whose accomplishment would probably lie between these two ranks. Before the name of the student who accomplished least the teacher was directed to place the name of the student whose accomplishment would probably lie between that of the average student and that of the poorest.

The teacher then checked from the alphabetical list of her students the names of the members of the class who were most like each of the five students listed on the card. The directions given were:

> If the pupil in the present class under consideration is most like the best pupil you ever had, write 1 after his name; if most like the average, write 3 after his name; if most like the poorest, write 5 after his name. If a pupil seems to belong between 1 and 3 score him 2. In a similar way use the term 4.

The teacher was cautioned against confusing the term "accomplishment" with "application"; for, as was pointed out, a pupil may accomplish a great deal with comparatively little effort, or he may apply himself greatly but accomplish little. Procuring a simple composite score, such as the one used here, involved a

[1] Teachers' rating is used because the rating was not that of one teacher, but the average of several teachers' ratings.

great deal more labor than the mere securing of an intelligence quotient. This extra work could only be justified by results which were proportionately better for the pupil. Also, a teachers' rating in which one could place confidence would require a considerable period of time, possibly a year, during which the teacher could become acquainted with the characteristics of the pupil.

The method of forming the three homogeneous sections and the two heterogeneous control sections was identical with that already described under the first year's experiment.[1] There were 132 pupils counted in this group who were ranked on the basis of composite scores rather than on the basis of intelligence quotients.

Table V summarizes the data pertaining to the basis of grouping. This table shows that the average composite score of the slow homogeneous group was approximately equal to the average composite score of the slow heterogeneous group. The same may be said for the average and fast groups. The table also shows that the average intelligence quotients of the pairs of slow groups and average groups were practically identical. But the average intelligence quotients of the fast groups show a marked difference which will be studied in detail later.

Table VI summarizes the differences of the mean gains for each group on all the tests. The difference of the mean gains favors homogeneous grouping for slow pupils in seven tests out of ten. It favors the average heterogeneous group in five tests out of ten, and the fast heterogeneous group in six out of ten. If the analysis were carried no further, the conclusions would be that homogeneous grouping on the basis of the composite score proved a marked advantage to slow pupils, of no advantage to average pupils, and a disadvantage to fast pupils.

When these data are judged by three factors—average composite score or average intelligence quotient, initial accomplishment, and the probable error—these conclusions are modified. Homogeneous grouping on the basis of composite scores now appears to be a disadvantage to the average pupils as well as to the fast pupils. The total gain of the slow homogeneous group over the total gain of the slow heterogeneous group was 2.79 standard deviations. The total

TABLE V

SUMMARY OF DATA CONCERNING BASIS OF GROUPING—1925-26

	Number Pupils in Group	Composite Score Range*	Average Composite Score	Average Intelligence Quotient
(1)	(2)	(3)	(4)	(5)
Slow homogeneous.....	13	70- 94	88.54	87.77
Slow heterogeneous.....	8	70- 94	84.38	87.38
Average homogeneous.....	23	95-112	104.09	102.26
Average heterogeneous....	17	95-112	104.70	101.00
Fast homogeneous.....	25	113-141	126.48	121.20
Fast heterogeneous.....	16	113-141	124.31	113.75

*Composite score was the basis of grouping during 1925-26.

[1] *See* Billett, R. O. "A Controlled Experiment to Determine the Advantage of Homogeneous Grouping," *Educational Research Bulletin*, 7:133-40, April 4, 1928.

TABLE VI

RELIABILITY OF THE DIFFERENCES BETWEEN THE MEAN GAINS OF THE HOMOGENEOUS AND HETEROGENEOUS GROUPS ON TEN TESTS

	Mean Gain*		Difference of Mean Gains	$\frac{M_1-M_2}{\sigma_t}$	Probable Error	Critical Ratio
	Homogeneous	Heterogeneous				
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Briggs English Forms Test:						
Slow	.85	1.37	−.52	−.13	.28	−.460
Average	.61	.59	.02	.01	.19	.026
Fast	1.16	2.00	−.84	−.21	.20	−1.040
Charters Language Test:						
Slow	4.07	−.12	4.19	.64	.28	2.274
Average	4.26	4.06	.20	.03	.19	.160
Fast	2.56	3.56	−1.00	−.15	.14	−1.086
Charters Grammar Test:						
Slow	7.07	.38	6.69	.82	.18	4.554
Average	4.13	4.64	−.51	−.06	.18	−.347
Fast	4.92	4.63	.29	.04	.19	.187
Inglis Vocabulary Test:						
Slow	6.92	6.37	.55	.03	.21	.123
Average	3.00	5.59	−2.59	−.12	.13	−.933
Fast	6.28	2.31	3.97	.19	.17	1.094
Hudelson Composition Scale:						
Slow	.69	.99	−.30	−.15	.14	1.040
Average	.28	1.01	−.73	−.35	.13	−2.726
Fast	−.65	1.25	−1.90	−.92	.13	−7.095
Lewis Letter of Application:						
Slow	26.92	11.25	15.67	1.46	1.89	.775
Average	.00	7.94	−7.94	−.74	2.22	−.334
Fast	12.80	9.07	3.73	.35	1.90	.183
Haggerty Reading Examination, Sigma 3:						
Slow	.77	−.75	1.52	.07	.27	.272
Average	3.74	1.59	2.15	.10	.16	.649
Fast	−.20	2.56	−2.76	−.13	.13	−1.025
Abbott-Trabue Appreciation of Poetry:						
Slow	−.15	.87	−1.02	−.57	.26	−2.180
Average	.82	−.18	1.00	.56	.21	2.645
Fast	.92	.50	.42	.23	.21	1.110
Kirby Grammar Test (Sentences):						
Slow	3.23	1.62	1.61	.39	.38	1.178
Average	−1.22	.35	−1.57	−.38	.11	−3.447
Fast	.84	1.50	−.66	−.16	.15	−1.063
Kirby Grammar Test (Principles):						
Slow	1.84	.38	1.46	.22	.28	.776
Average	3.43	2.88	.55	.08	.16	.511
Fast	4.80	5.75	−.95	−.14	.19	−.744

*When the gain of the heterogeneous group is greater than the corresponding gain of the homogeneous group, it is preceded by a minus sign.

gain of the average heterogeneous group exceeded the gain of the average homogeneous group by .88 standard deviations. The total gain of the fast heterogeneous group was .91 standard deviations more than the gain of the fast homogeneous group.

It is interesting to note that these conclusions would be unaltered if only the five tests used during the first year were considered. If the difference of the mean gains expressed in the terms of the standard deviation of the test were algebraically added for the first five tests, the results would show 1.21 standard deviations in favor of the slow homogeneous group, 0.5 standard deviations in favor of the average heterogeneous group, and 1.06 standard deviations in favor of the fast heterogeneous group. These results suggest the need of an analysis of the relative effects of the components intelligence quotient and teachers' rating, which make up the composite score.

Suppose, first, that the pupils who participated in the experiment during the second year had been grouped solely on the basis of intelligence quotients, as was the case during the first year. How closely would the grouping approximate the grouping obtained from using the composite score? The following summary shows the number of pupils in each group who would not have belonged there if the intelligence quotient had been the sole basis of grouping:[1]

Group	Number Misplaced
Slow homogeneous	0
Slow heterogeneous	2
Average homogeneous	8
Average heterogeneous	7
Fast homogeneous	3
Fast heterogenous	7

The first apparent fact is that not one slow pupil was placed in the slow homogeneous group on the basis of composite score who would not have been placed there on the basis of intelligence quotient, only. Two pupils who were classed as slow heterogeneous would have been classed as average on the basis of the intelligence quotients. But the displacement was slight, their intelligence quotients were 97 and 98, respectively, and the upper limit of range of the intelligence quotients of the slow group was 96 (see Table II).[2]

However, fifteen average and ten fast pupils were misplaced. Since there were only eighty-one average and fast pupils, 30 percent of them would have been misplaced, if the intelligence quotient had been accepted as the sole criterion of grouping. It may be said then that the only homogeneous group which existed, when determined by intelligence quotients, was the slow group. This slow group also made marked gains, just as the slow group of 1924-25 did. Intelligence quotients of the other groups were heterogeneously arranged.

Since the teachers' rating affected the slow homogeneous group least, it was concluded that teachers were better judges of low ability than of average or high ability. An inspection of the original data sheets justified the following statements: Teachers only occasionally gave high ratings to pupils of low intelligence quotient; but they frequently gave high ratings to pupils of average intelligence quotient and low ratings to pupils of high intelligence quotient.

The following seems a reasonable explanation. Teachers' ratings or teachers' marks are measures of accomplishment. Accomplishment seems to be the product of native ability and effort. The teacher knows very little about the relative amounts of effort put forth by any two pupils to accomplish equivalent results because she knows very little about the relative abilities or capacities of the two pupils. What point or purpose

[1] This misplacement would have been much greater if the teachers' rating had been the sole basis of grouping during 1925-26.

[2] Billett, *op. cit.*, p. 135.

would there be, then, in segregating twenty-five pupils who have a high teachers' ratings into one class? The very fact that they possess high teachers' ratings is evidence that they need little motivation. They are self-starters. If they lack native brightness they make it up in increased effort. They will survive any educational treatment, for they are the ones who have made good what has already been scrambled. This conclusion is justified by the preceding facts. It is also supported by the facts which follow.

Earlier in this discussion it was noted that the average intelligence quotient of the fast homogeneous group was 121.2, while the average intelligence quotient of the fast heterogeneous group was only 113.75 (see Table V). This variation was the

TABLE VII

MEAN GAINS OF THE GROUPS ISOLATED FOR THE PURPOSE OF STUDYING RELATIVE EFFECTS OF INTELLIGENCE QUOTIENT AND TEACHERS' RATING OF ACCOMPLISHMENT

	Group A (Fast Homogeneous)	Group B (Fast Heterogeneous)	Group C (Fast Heterogeneous)	Group D (Fast Homogeneous)	Group E (Fast Homogeneous)	Group F (Fast Heterogeneous)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Briggs English Forms Test:	1.9	2.0	1.4	1.16	.7	3.0
Charters Language Test.....	3.1	3.56	2.6	2.56	2.2	5.16
Charters Grammar Test....	6.0	4.62	3.4	4.92	4.2	6.66
Inglis Vocabulary Test.....	4.0	2.31	4.7	6.28	7.8	—1.66
Hudelson Composition Test.	—1.14	1.25	1.21	—.61	—.6	1.48
Lewis Letter of Application..	10.5	9.06	10.0	12.8	14.3	7.5
Haggerty Reading Examination, Sigma 3.....	4.3	2.56	—.5	.76	—1.6	7.5
Abbott-Trabue Appreciation of Poetry.....	1.0	.5	.6	.92	.9	.33
Kirby Grammar Test (Sentences).....	.8	1.5	.4	.63	.9	3.33
Kirby Grammar Test (Principles).....	5.1	5.12	4.7	4.8	4.6	5.83
Number of pupils.....	10	16	10	25	15	6
Average *IQ*.....	113.50	113.75	121.60	121.20	125.80	100.60
Character of group.....	Partial	Total	Partial	Total	Partial	Partial

under the conditions of heterogeneous grouping.

A slow group of twenty-five students, judged on the basis of teachers' ratings alone, may be exceedingly heterogeneous with regard to native ability. It may contain a few pupils of high academic ability who have never learned to work. It may also contain many naturally dull pupils who need patient explanation and drill. To use teachers' ratings as the partial or sole basis of grouping is merely to rescramble result of chance. When supposedly homogeneous groups were formed no attention was paid to intelligence quotients or teachers' ratings. But the composite score used as a basis for forming the groups carried within itself the two factors, intelligence quotient and teachers' rating. A pupil manifestly got a place in the fast group, if he had a high intelligence quotient and not too low a teachers' rating, or if he had a high teachers' rating and not too low an intelligence quotient, or if he had a

high intelligence quotient and a high teachers' rating. Actual inspection of the intelligence quotients, teachers' ratings, and composite scores of the fast heterogeneous group revealed two facts. (1) Six out of a total of sixteen fast pupils would have been placed in the average group on the basis of intelligence quotient, only. (2) The average of the teachers' ratings of these students divided by sigma was 4.64. A similar inspection for the fast homogeneous group revealed that only three pupils out of twenty-five would have been placed in the average group on the basis of intelligence quotient, only, and that the average teachers' rating divided by sigma was 3.99, or 0.65 of a standard deviation less than the teachers' ratings of the fast heterogeneous group. These facts established that, in general, the fast homogeneous pupils, as a group, accidentally owed their places largely to high intelligence quotients; the fast heterogeneous pupils, as a group, accidentally owed their place to high teachers' ratings.

If the lowest ten pupils—lowest if judged by their intelligence quotients—in the fast homogeneous group, were segregated, their average intelligence quotient was 113.5, almost exactly the same as the average of the fast heterogeneous group (see Table VII). The remaining fifteen fast homogeneous students had an average intelligence quotient of 125.8. The average intelligence quotient of the six lowest pupils in the fast heterogeneous group was 100.6, while the remaining ten pupils in the fast heterogeneous group had an average intelligence quotient of 121.6.

Table VII shows the average scores made by each of these partial groups on each test. For purposes of comparison the average scores made by the total fast homogeneous group and the total fast heterogeneous group are also included. Groups C, D, and E consisted of pupils who received their places in the fast group because of relatively high intelligence quotients. Groups A, B, and F consisted of pupils who received their places in the fast groups because of relatively high teachers' ratings. The average scores of Groups A, B, and F, on the various tests were, in general, much above the averages of Groups C, D, and E as is indicated by the summations given in Table VIII.

TABLE VIII

SUMS OF THE AVERAGE GAINS MADE BY CERTAIN COMBINED GROUPS

	Groups A, B, and F	Groups C, D, and E
(1)	(2)	(3)
Briggs English Forms Test..	6.90	3.26
Charters Language Test.....	11.82	7.36
Charters Grammar Test....	17.28	12.52
Inglis Vocabulary Test.....	4.65	18.78
Hudelson Composition Test.	1.59	0.54
Lewis Letter of Application.	27.06	37.10
Haggerty Reading Examination, Sigma 3.....	14.36	—1.34
Abbott-Trabue Appreciation of Poetry.....	1.83	2.42
Kirby Grammar Test (Sentences).....	5.63	1.93
Kirby Grammar Test (Principles).....	16.05	14.10

Any comparison of the groups of Table VII will show that the partial group which secured its place in one of the fast groups because of high teachers' ratings made significant gains over the other groups of corresponding or higher intelligence quotients. For example, the gains of Group F were generally far above the gains of either C, D, or E, in spite of the fact that Group F had an average intelligence quotient of only 100.6, far below the average intelligence quotient of any of the other groups in the table. That is, those who had in the past, under previous school

conditions, accomplished most, as was shown by their high teachers' ratings, still continued to accomplish most. Those of rather high intelligence quotient, and hence probably possessors of high potential academic ability were still unmotivated.

High teachers' ratings undoubtedly mean ability to survive any grouping, no matter how heterogeneous. In other words it means marked accomplishment under the present heterogeneous type of grouping. But, teaching should aim to make accomplishment commensurate with native ability. Therefore, grouping should be made on the basis of native ability, and the teachers' efforts should be directed toward getting the pupil to exert the effort necessary to secure accomplishment which is commensurate with his powers.

CONCLUSIONS

The general conclusions of the study of 1925-26, viewed in the light of the experiment of the preceding year are:

1. The intelligence quotient is a better basis for homogeneous grouping for educational purposes than a composite score of intelligence quotient and teachers' ratings or teachers' marks, because (1) the intelligence quotient may be secured with less labor than the composite score; and (2) grouping on the basis of intelligence quotient benefits at least two of the three groups, whereas grouping on the basis of composite score benefits only one of the three groups.
2. The use of teachers' marks *in toto*, or in part, as a basis for grouping tends toward heterogeneity of unchangeable qualities, such as intelligence quotients, and homogeneity of changeable qualities, such as effort or industry—qualities which education aims to improve.
3. Assuming pupils to have had approximately equivalent experience, development, and mastery of facts, further grouping should aim to separate then into groups of equivalent potential rates of learning. The objective of the teacher then becomes that of urging each pupil to reach the level of his ability.

(*To be continued*)

EDUCATIONAL READINGS

HUNTER, H. REID. *Georgia's Plan for Distribution of Her Equalization School Fund, ASBJ*, 76:40, March, 1928.

A new plan for the distribution of the $1,000,000 equalization fund appropriated by the legislature of Georgia in 1927 requires that it be on the basis of educational needs and ability to pay for schools. County or independent districts must make a five-mill levy in order to share in this equalization fund. The minimum expenditure for salaries is based on an average of $630 per teacher for a school year of seven months. The number of teacher units is determined by the average daily attendance, and the teacher's load consists of an average daily attendance of thirty pupils. The difference between the amount of money necessary to establish the average salary per teacher and the income from the five-mill levy will be appropriated from the state equalization fund in case the five-mill levy does not provide sufficient income. Advantages claimed for the Georgia plan include establishment of a minimum salary schedule for rural-school teachers, encouragement of better daily attendance, easy administration, encouragement of

NOTE.—The abbreviations used in this number are: *ASBJ*, American School Board Journal; *SR*, School Review; *FE*, Forum of Education; and *EA&S*, Educational Administration and Supervision.

local initiative, lengthening of the school year, and possibly better equalization of tax returns among counties.

PUCKETT, ROSWELL C. *Making Supervision Objective, SR*, 36:209–12, March, 1928.

This article presents a little device for recording in symbols the class procedure during a supervisory visit. At the close of a recitation the supervisor has a graphic record of the pupil responses.

JONES, ARTHUR J. *Plan for a Comparative Study of English and American Secondary Schools, FE*, 6:73–78, February, 1928.

The author presents an outline for a proposed study of secondary education in the two countries. Main facts and tendencies will be compared, and the objectives, school population, staff, curricula, material equipment, and administration, will be studied. The study should prove valuable to both countries.

OATES, DAVID W. *A Statistical and Psychological Investigation of Intelligence Tests, FE*, 6:38–62, February, 1928.

Educational workers are so frequently satisfied with a little fact and much padding that it is refreshing to find a study carried through as thoroughly and carefully as this one. An interesting criterion for measuring the worth of tests is the bright-young versus dull-old ratio. If this ratio is 1.00 or more the test is considered a good measure of intelligence.

SCHMIDT, HANS. *School-Building Ventilation, ASBJ*, 76:49–50, 104, 106, March, 1928.

A discussion of the problems of school-building ventilation is especially interesting since it shows how little real evidence we have as to proper means of ventilation in school buildings. The article includes a rather clear analysis of the values of various types of ventilation facilities.

LYMAN, R. L. *The Junior High Schools of Kansas City, Kansas, SR*, 36:176–91, March, 1928.

Since Kansas is the leading junior high-school state in the Middle West, Kansas City was chosen for study as representative of the best intermediate-school practices. There has been a progressive policy in providing buildings and equipment with the pay-as-you-go policy prevailing. It is impossible to review here all the good features, such as the relative freedom from domination by the senior high school, ability grouping, and differentiated instruction. "The intermediate schools have become indispensable units in the school system; articulating readily with the lower and higher units, and, above all, offering to boys and girls between twelve and sixteen years of age a normal, wholesome, happy school life."

KOCH, HARLAN C. *From the Mouths of Latin Teachers, SR*, 36:199–208, March, 1928.

Latin instruction has become so highly formalized that Latin teachers ignore three common problems, the course of study, physical conditions of teaching, and the curriculum. They do feel the need of training in special methods. The general apathy of Latin teachers probably accounts in part for the rather widespread dissatisfaction with the subject in the high schools.

Present-Day Problems and Advances in City School Administration Gleaned from Studies of the U. S. Bureau of Education, ASBJ, 76:78, 80, March, 1928.

Rather complete summaries of the results of studies carried on in the United States Bureau of Education are given in this article. Some of the subjects included are the abolishment of school-board committees, the progress of teacher training, more extensive use of community centers and government expenditures for educational work.

WADHAMS, J. ANDRE. *From Fraternities to Clubs, ASBJ*, 76:51–52, March, 1928.

School administrators facing the high-school fraternity problem will be interested in this detailed explanation of a plan by which these groups causing considerable annoyance to school authorities were reorganized into school clubs. Through a questionnaire, parents and students were found to be predominately opposed to highly exclusive organizations. The new clubs were based on scholarship, democracy, and faculty guidance. The author reports the plan to be working rather effectively.

NIETZ, JOHN A. *The Current Use of Teachers' Application Blanks, ASBJ*, 76:55–56, March, 1928.

An analysis of forty-five teacher application blanks used in large city school systems provided the material for this article. The author found that only five of the fifty largest city school systems do not use teacher application blanks. The numbers of questions on the blanks run

from 24 to 117 with southern cities asking the greatest number. The author feels that the chief purpose of the application blank is to determine the eligibility of the teacher.

FOSTER, H. H. *Schedule-Making in the Small High School, EAS*, 14:170–78, March, 1928.

The work of the inexperienced principal of a small high school will be greatly expedited by this well-planned and adequately illustrated explanation of the technique of schedule-making. It is the type of practical aid which those in charge of high schools are always seeking. The author presents a schedule for a four-year high school with 8 teachers and 166 pupils, using the so-called "block schedule" system. The complete schedule is given, and steps in the procedure are shown.

IN PAPER COVERS

LANE, ROBERT HILL. *A Work Book for Principals and Supervisors in Elementary Schools*. Los Angeles, California, Los Angeles City School District, 1927. 180 pp. (School Publication No. 151)

This monograph, which has been prepared by one of the assistant superintendents of the Los Angeles school system, may be considered as a series of suggestions which will serve to guide the elementary-school principal in performing his duties and in self-appraisal. The material is organized around six major problems, two of which are "How Shall I Measure My Efficiency as a Principal?" and "How Shall I Improve the Learning Activities in My School?" The book has been used as the basis for certain courses given at the University of Southern California.

STRAYER, GEORGE D. (Director). *Report of the Survey of the Schools of Lynn, Massachusetts*. New York, Teachers College, Columbia University, 1927. xix + 368 pp. (Institute of Educational Research, Division of Field Studies, Teachers College, Columbia University)

The phases of public education in Lynn, Massachusetts, which are considered in this survey are: the administration of schools, the present school plant, financing of education in Lynn, teachers' salaries, classification and progress, the elementary schools, secondary schools, health and physical education, and adult and adolescent education for wage earners. Each chapter of the report closes with a summary of the findings and detailed recommendations. It is quite evident from the nature of the summary statements that conditions are portrayed as they actually exist. This is best illustrated by a statement regarding the school's health program: "The health work of the board is a complete failure; it does not accomplish results and does not even know how abject its failure is." Such an impartial evaluation, coupled with the recommendations for improving existing conditions, should greatly aid the Lynn school officials in their efforts to provide better educational opportunities for their boys and girls.

ALLEN J. EDWARD. *Freshman Mortality, A Symptom of Remediable Weaknesses*. Warrenton, North Carolina, Warren County School System, n. d. 16 pp.

The author reviews the common causes of student failure, such as poor high-school instruction, crowded curricula in high schools, poor grading by college instructors and others. He is quite severe in his criticism of college instruction. A Senior in high school is taught by trained teachers who have had at least eighteen hours of professional subjects. He goes to college and is taught by instructors who have met no such requirements. "As a result scarcely a single man leaves college without carrying away with him memories of teaching methods used by instructors which are tantamount to a crime against immaturity."

BOWERS, HENRY. *Transfer Values of Secondary School Science*. Toronto, Ontario University of Toronto Press, 1927. 96 pp.

The problem is "To determine to what extent a course in physics or chemistry in Ontario high schools affects ability to score on certain tests." In the administration of the experiments, however, training and control groups were established not only for physics and chemistry but for each of the other subjects of the middle-school curriculum. The test series were given twice to more than one thousand of Ontario's high-school pupils. The principal conclusion is that "There is no evidence of transfer or hindrance from middle or upper-school physics or chemistry, nor indeed from the middle-school subjects—English, algebra, geometry, history, Latin, and French—to such abilities as are measured by the tests."

STRICKLAND, V. L. *Relative Levels of Intelligence in College and High School.* Manhattan, Kansas, Kansas State Agricultural College, 1926. 114 pp. (Kansas State Agricultural College Bulletin. Vol.10, No. 4)

It is very difficult in this, as in many other studies of a similar nature, to give even a fair résumé of the findings. Strickland finds that high intelligence is not a guarantee of success in college, but that nine-tenths of those successful in college come from the upper half of high-school graduates in ability. He also finds that 99 percent of those doing successful college work, and 99 percent of the Seniors come from the upper twenty-five percent of the general population in ability. This study is a very good example of the application of scientific method to educational problems.

BOOKS TO READ

HARAP, HENRY. *The Technique of Curriculum-Making.* New York, Macmillan Company, 1928. xi + 315 pp.

Every school system of any size is going through the throes of making, remaking, and revising its curriculum. The principles on which the revisers proceed have been vague and undefined, and, as a result, most of the curricula produced have been peculiar hybrids of the old and new, of the formal and informal.

A curriculum on curriculum-making is, then, very timely. Dr. Harap has presented just such a curriculum. The material was worked over with successive classes and was finally organized into units for about sixty class meetings, with directions for group and individual work. For each unit there is a brief discussion of the problem, a paragraph on assignment, and a bibliography of readings. Two rather extensive bibliographies appear at the end of the book, one on general investigations and the other on curricular investigations in the school subjects. The book will prove an interesting and valuable addition to the technique of curriculum construction.

POWERS, J. ORIN. *The Junior High School.* Minneapolis, Minnesota, University of Minnesota Press, 1927. xii + 125 pp.

Of the rather numerous doctors' dissertations which the writer has reviewed, he regards this as one of the best from three standpoints—content, organization, and typography. The subtitle of this report, "A Study of Instructional Results in a Typical School System," indicates the nature of the study, which was concerned with the Minneapolis school system. In chapter x, the author enumerates twenty-one findings and then makes some searching comments on the implications of the findings. These six implications merit thoughtful consideration by all who are charged with junior high-school responsibilities. These findings and implications suggest elements that must be sought out and evaluated in any appraisal of a junior high-school organization.

ARMENTROUT, W. D. *The Conduct of Student Teaching in State Teachers Colleges.* Greeley, Colorado, Colorado State Teachers College, 1927. viii + 198 pp.

This book consists of a series of reports on a number of objective studies dealing with various phases of the student-teaching problem, together with suggested methods of improvement. One of these studies shows that, in the rating of two hundred teachers by superintendents and by training teachers, there was an agreement between the two ratings averaging 40.8 percent and ranging, among sixteen factors rated, from 36.2 percent to 47.9 percent. A twelve-page bibliography on student teaching concludes the book. It is the opinion of the reviewer that those persons who are interested in student teaching cannot well afford not to know this book.

RUCH, G. M., AND STODDARD, GEORGE D. *Tests and Measurements in High School Instruction.* Yonkers-on-Hudson, New York, World Book Company, 1927. xix + 381 pp.

The authors of this book give a brief historical background for the testing movement, and then proceed at once to a careful discussion of the uses and limitations of tests in high schools.

Part II of the book will prove most valuable to teachers. Here the authors present detailed descriptions of the tests now current, and also collected statistics concerning the validity and reliability of the various tests. Chapter bibliographies give publishers and prices for the test materials described. Those who are interested in the construction of new tests will find Parts III and IV especially valuable.

Colleges and universities which train secondary-school teachers will find this an excellent text for a course in measurement. Teachers and principals will find it an excellent reference.

NEW TESTS

The Chicago Practice Tests for Mastery of the Mechanics of English have recently been prepared by Miss Sophia C. Camenish and published by the *English Journal*. Half of the sheets are for practice, and the other half for correction and testing. The tests are designed particularly for use in the ninth grade.

The entire series of Harvard Tests are now being published and distributed by Ginn and Company. The following tests in this series are available: Background in Social Studies, Chemistry, Elementary Physics, Latin Syntax, Latin Vocabulary, and French.

These are put up in handy tablet form, thirty tests to the tablet. Directions, scoring key, norms, and class-record sheet are given on the cover pages. There are two forms of each of the tests except the French.

A set of Diagnostic-Accomplishment Tests in English has been prepared by Harold T. Eaton, of the Brockton High School, Brockton, Massachusetts. The A-series of tests is considered diagnostic, and the B-series, which is a parallel series, is considered an achievement measure for retesting purposes. There are eleven subtests in each series. These are spelling, capitalization, punctuation, subjects and predicates, cases, phrases, clauses, verbs, definitions, common errors, and kinds of sentences. These tests are published by the Palmer Company of Boston.

Practically all high-school subjects have yielded to the art of the test-maker. The Nash-Van Duzee Industrial-Arts Tests have been prepared for testing the subjects in this field. The test is divided into three parts: Part I, wood working; Part II, wood construction; and Part III, on the ability to read a drawing or a blue-print. Norms have been established on the performances of about three thousand pupils. The tests seem to be well-validated, and the coefficient of reliability seems to be high. These tests may be secured from the Bruce Publishing Company, Milwaukee, Wisconsin.

The Professional Tests for Teachers have been designed for the purpose of taking some of the hazard out of teacher selection. There are two parts to the tests, an aptitude test, and a placement test. Both are impersonal and objective, and their validity can readily be determined. They are not intended as substitutes for present methods, but rather as additional data on the qualifications of prospective teachers. The tests are published by the Bureau of Public Personnel Administration at Washington.

The Smith-Reeve-Moras Mathematical Tests are now being issued by Ginn and Company. The Exercises and Tests in Algebra consist of 224 tests on the various phases of algebra, through quadratics. There are two forms for each phase. The tests are put up in tablet form, all of the tests appearing in each tablet or book.

A series of junior high-school tests, one for each grade or year, are also in preparation. The booklet for seventh grade is now ready. This comprises tests in arithmetic and phases of geometry usually presented in seventh-grade junior high-school mathematics. Manuals containing suggestions for use and answer keys are supplied for the use of the teacher.